This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for isolating a self-renewing, multipotent, slow-cycling cell comprising obtaining a population of cells from a sample and sorting the population of cells based on the presence of CD34 and the amount of a selected slow-cycling cell marker expressed by each cell, so that a self-renewing, multipotent, slow- cycling cell is isolated, wherein the selected slow-cycling cell marker is selected from the group of Transcription Factor 3, Transcription Factor 4, Alpha 6 Integrin, G-Protein-Coupled Receptor 49 and Bone Morphogenetic Protein Receptor 1A.

Claim 2 (original): A cell isolated according to the method of claim 1.

Claim 3 (original): The cell of claim 2, wherein said cell lacks an increase in expression of a marker associated with a cell committed to a specified lineage.

Claim 4 (original): The cell of claim 2, wherein said cell lacks an increase in expression of a marker associated with a classical stem cell.

Claim 5 (original): The cell of claim 2, wherein said cell will differentiate into an epidermal cell, neuronal cell, or glial cell.

Claim 6 (canceled).

Claim 7 (previously presented): A method for isolating a self-renewing, multipotent, slow-cycling cell comprising:

a) introducing into a cell a nucleic acid sequence encoding a regulatable transcription factor operably linked to a promoter which is active in a slow-cycling cell;

b) introducing into said cell a nucleic acid sequence encoding a reporter protein operably linked to a regulated promoter to which the regulatable transcription factor binds;

c) activating the regulatable transcription factor so that expression of the reporter protein is increased;

d) inactivating the regulatable transcription factor so that expression of the reporter protein is decreased;

e) incubating the cell for a sufficient amount of time so that the cell goes through one or more cell cycles to generate a population of cells;

f) detecting the amount of reporter protein in the population of cells;

g) sorting the population of cells by the amount of reporter protein present in each cell,

wherein sorted cells containing increased levels of the reporter is indicative of said sorted cells being self- renewing, multipotent, slow-cycling cells.

Claim 8 (original): The method of claim 7, further comprising the step of:

h) sorting the population of cells based on the presence of CD34 and the amount of a selected slow-cycling cell marker.

Claim 9 (original): A cell isolated according to the method of claim 7.

Claim 10 (original): A cell isolated according to the method of claim 8.

Claim 11 (original): The cell of claim 10, wherein said cell lacks an increase in expression of a marker associated with a cell committed to a specified lineage.

Claim 12 (original): The cell of claim 10, wherein said cell lacks an increase in expression of a marker associated with a classical stem cell.

Claim 13 (original): The cell of claim 9, wherein said cell will differentiate into an epidermal cell, neuronal cell, or glial cell.

Claim 14 (original): The cell of claim 10, wherein said cell will differentiate into an epidermal cell, neuronal cell, or glial cell.

Claim 15 (original): A clonal population comprising cells of claim 9.

Claim 16 (original): A clonal population comprising cells of claim 10.

Claims 17-20 (canceled).